

REMARKS

Claims 1-20 are pending. Claims 9 and 10 have been cancelled and the other claims amended.

Formal drawings were submitted on June 1, 2005.

The object of the invention is to more efficiently transmit content (data, music, video, etc.) at a desired target bandwidth B_T . When doing this in packets of a fixed size P there is an optimum wait time t_w between the start of transmission of successive packets (see Fig. 7) that can be computed as $t_w = \frac{P}{B_T}$.

For various practical reasons, the target bandwidth B_T sometimes is not achieved and varies around a mean value B_M . Also, in the transmission of the content, problems of burstiness occur (see Paragraphs [0055] -[0057] of the publication of this application.

Another problem in achieving an exact B_T is the granerlarity of the transmission basically caused by system hardware limitations. That is, achieving a precise t_w to obtain the desired B_T is sometimes compromised by system hardware limitations.

The object of the present invention is to maintain the transmission of the content as close to the target bandwidth B_T as possible. In the subject invention, applicant achieves a better control of transmission to achieve the desired target bandwidth B_T by controlling packet transmission to achieve a residual time t between the end of transmission of one packet and the start of transmission of the next successive packet. Reference is made to Fig. 7 which shows the concept and to the flow charts of Figs. 3, 8 and 9 which set forth how this can be accomplished. These are described at [0068]-[0089] of the publication.

The main independent method claim 1 and main apparatus claim 13 are amended to set forth the control of transmission based on the residual time t . The amendment to method claim 1 is a somewhat broader recitation of the subject of claim 5 and to apparatus claim 13 a somewhat broader recitation of the subject matter of claim 15.

Original independent claims 1 and 13 were rejected as anticipated by Jaffe, U.S. 6,625,122. This patent is directed to the transmission of packets of data from a plurality of virtual connections (VC) 120. Jaffe queues the VCs 120 so that the respective data of each can be transmitted by or through a single port 120 at the appropriate times to achieve a desired target bandwidth.

Contrasted to this, the subject application is directed to the transmission of a content, i.e., package of data. Jaffe does not appear to be directed to obtaining the control of a "content" as is done by the subject application in the novel manner discussed above.

Claims 5 and 15, whose concept is now in the main independent claims 1 and 13, were rejected as being obvious over Jaffe. The Examiner (Office Action, page 5, last five lines to page 6, line 1) recognizes the difference in using the residual time t as a control factor and considers that it would be obvious to compute additional cell scheduling/processing times to better track the actual transmission rates. No other art of detailed reasons are given to support this broad assertion.

But Jaffe neither teaches nor suggests this and does not disclose how to accomplish this. Jaffe clearly does not teach or suggest the specific claimed concept of the subject application of using control of the residual time between the end of transmission of one packet and that of transmission of the next packet so as to better control obtaining the desired wait time t_w and thereby obtain the goal of obtaining the desired target bandwidth B_T .

Accordingly, the main claims 1 and 13 define novel and advantageous subject matter that patentably distinguishes over Jaffe and should be allowed.

Claims 2-7 and 11-12 depend from claim 1 and claims 14-20 depend from claim 13. These dependent claims recite further novel features of the invention. Attention is particularly directed to method claims 7 and 8 and apparatus claims 17 and 18, which are directed to the embodiment of Figs. 8-9. In the embodiment of Fig. 9, dynamic control using the residual time t is accomplished. This clearly is not shown or suggested in Jaffe.

The amended claims correspond to claims in which an obviousness rejection was made in the Office Action and which was addressed without giving specifics on the

basis of being obvious to one skilled in the art. Therefore, if the Examiner gives further reasons and/or cites additional prior art to support this obviousness rejection, then he is respectfully requested not to make the next Office Action final so that applicant will have an adequate opportunity to respond to such more detailed rejection.

The other art cited has been considered and is not deemed pertinent.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Prompt and favorable action is requested.

Dated: October 4, 2005

Respectfully submitted,

By 

David Leason

Registration No.: 36,195

DARBY & DARBY P.C.

P.O. Box 5257

New York, New York 10150-5257

(206) 262-8919

(212) 527-7701 (Fax)

Attorneys/Agents For Applicant